AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended): A method of transducing the conformational change of a signaling aptamer that occurs upon the signaling aptamer binding a ligand to a detectable increase in a fluorescence intensity signal or in a colorimetric intensity signal generated by a reporter molecule that is coupled to the signaling aptamer prior to binding the ligand, comprising the steps of:

covalently coupling the reporter molecule within an aptamer ~~to~~ in proximity to a binding site specific for the ligand to form the signaling aptamer such that the reporter molecule does not interfere with the binding site, wherein the reporter molecule replaces a nucleic acid residue ~~within the aptamer~~ or is inserted between two nucleic acid residues ~~within the aptamer such that the placement does not interfere with~~ and wherein the ligand is a molecule that is not a nucleic acid sequence bound by the signaling aptamer ~~binding site of the aptamer~~;

placing the signaling aptamer in solution;

contacting the signaling aptamer in solution with the ligand under conditions whereby the signaling aptamer binds the ligand;

binding the ligand to the binding site of the signaling aptamer;

inducing the conformational change in the signaling aptamer upon binding of said ligand thereto; and

transducing the conformational change to a detectable ~~detecting the~~ increase in the fluorescence intensity signal or in the colorimetric intensity signal generated by the

reporter molecule ~~transduced by the conformational change in the signaling aptamer upon binding the ligand.~~

Claims 2-5 (canceled).

Claim 6 (previously presented): The method of claim 1, wherein the covalent coupling of the reporter molecule to the aptamer occurs during chemical synthesis, during transcription or post-transcriptionally.

Claim 7 (previously presented): The method of claim 1, wherein the reporter molecule is a dye.

Claim 8 (original): The method of claim 7, wherein the dye is a fluorescent dye.

Claim 9 (original): The method of claim 8, wherein the fluorescent dye is acridine or fluorescein.

Claim 10 (previously presented): The method of claim 1, wherein the aptamer is selected from the group consisting of RNA, DNA, modified RNA and modified DNA.

Claim 11 (canceled).

Claim 12 (original): The method of claim 1, wherein the ligand is in solution.

Claims 13-14 (canceled).

Claim 15 (currently amended): A method of transducing the conformational change of a signaling aptamer that occurs upon the signaling aptamer binding a ligand to a detectable increase in fluorescence intensity or in colorimetric intensity generated by a fluorescent dye that is coupled to the signaling aptamer prior to binding the ligand, comprising the steps:

covalently coupling the fluorescent dye within an aptamer ~~to~~ in proximity to a binding site specific for the ligand to form the signaling aptamer such that the fluorescent dye does not interfere with the binding site, wherein the fluorescent dye replaces a nucleic acid residue ~~within the aptamer~~ or is inserted between two nucleic acid residues ~~within the aptamer such that the placement does not interfere with~~ and wherein the ligand is a molecule that is not a nucleic acid sequence bound by the signaling aptamer ~~binding site of the aptamer~~;

placing the signaling aptamer in solution;

contacting the signaling aptamer in solution with the ligand under conditions whereby the signaling aptamer binds the ligand; and

binding the ligand to the binding site of the signaling aptamer;

inducing the conformational change in the signaling aptamer via binding of said ligand thereto; and

transducing the conformational change to a detectable ~~detecting the~~ increase in the fluorescence intensity signal or in the colorimetric intensity signal generated by the fluorescent dye ~~transduced by the conformational change in the signaling aptamer upon binding the ligand~~.

Claims 16-18 (canceled).

Claim 19 (previously presented): The method of claim 15, wherein the fluorescent dye is fluorescein or acridine.

Claim 20 (previously presented): The method of claim 15, wherein the aptamer is an anti-adenosine RNA aptamer or an anti-adenosine DNA aptamer.

Claim 21 (original): The method of claim 20, wherein the anti-adenosine RNA aptamer is ATP-R-Ac13.

Claim 22 (original): The method of claim 20, wherein the anti-adenosine DNA aptamer is DFL7-8.

Claim 23 (canceled).

Claim 24 (original): The method of claim 23, wherein the ligand is adenosine.

Claim 25 (original): The method of claim 15, wherein the ligand is in solution.

Claims 26-27 (canceled).

Claim 28 (currently amended): The method of claim 15, ~~wherein the ligand is quantitated by the step~~ further comprising:

correlating the increase in fluorescence intensity or in colorimetric intensity ~~optical signal~~ generated upon the signaling aptamer binding the ligand with the quantity of ligand bound to the signaling aptamer.